

23. Environmental Justice

23.1 Introduction

This chapter describes the ethnic and income characteristics of the populations within the Extended, Secondary, and Primary study areas. Descriptions and maps of these three study areas are provided in Chapter 1 Introduction. Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (USEPA, 2013).

The regulatory setting for environmental justice is discussed briefly in this chapter, and is presented in greater detail in Chapter 4 Environmental Compliance and Permit Summary.

This chapter focuses primarily on the Primary Study Area. Potential impacts in the Secondary and Extended study areas were evaluated and discussed qualitatively. Potential local and regional impacts from constructing, operating, and maintaining the alternatives were described and compared to applicable significance thresholds. Specifically, the chapter discusses whether the alternatives would have disproportionately high and adverse human health or environmental effects on minority and/or low-income populations, as defined by State and federal regulations that address environmental justice. Mitigation measures are provided for identified significant or potentially significant impacts, where appropriate. Because none were identified for this resource, no mitigation is included in this chapter.

23.2 Environmental Setting/Affected Environment

23.2.1 Introduction

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 Federal Register No. 32), was signed on February 11, 1994, by President Clinton. EO 12898 requires that each federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations (Federal Register, 1994).

The intent of EO 12898 is to assess potential impacts from the implementation of development projects, subject to federal permitting requirements, to confirm that no person in the United States shall, on the basis of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Where possible, measures should be taken to avoid negative impacts to these communities or mitigate the adverse effects.

The U. S. Census Bureau provides a definition of minority and low-income populations. The term “minority population” includes persons who identify themselves as African American, Asian or Pacific Islander, American Indian or Alaskan Native, or Hispanic (U.S. Census Bureau, 2009a). Race refers to census respondents’ self-identification of racial background. Hispanic origin refers to ethnicity and language, not race, and may include persons whose heritage is Puerto Rican, Cuban, Mexican, or Central or South American, and other Spanish cultures (Office of Management and Budget, 1997).

According to the Council on Environmental Quality (CEQ), to be considered a minority population, the population of the affected area must either exceed 50 percent minority, or the minority population percentage of the affected area must be meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. To be considered a low-income population, the low-income populations in an affected area should be identified using the annual statistical poverty thresholds from the U.S. Census Bureau. A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds (CEQ, 1997). In addition, according to USEPA guidelines, similar to the CEQ, a minority population refers to a minority group that has a population of greater than 50 percent of the affected area's general population; or the minority population percentage of the affected area must be meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (USEPA, 1998).

The U. S. Census Bureau does not provide a specific definition for “low-income.” Rather, the term “poverty” is used, and poverty thresholds are established each year for statistical purposes (U.S. Census Bureau, 2009b). The U.S. Department of Health and Human Services issues poverty guidelines each year that are a simplification of the U.S. Census Bureau's poverty thresholds. The guidelines are another version of the federal poverty measure; they are used for administrative purposes (for example, such as determining financial eligibility for certain federal programs) (IRP, 2008).

23.2.2 Extended Study Area

23.2.2.1 Methodology

To characterize the population, race, and ethnicity of the Extended Study Area, data from the U.S. Census Bureau were obtained for each of the 39 counties that are located within that study area. Table 23-1 presents the total population and population breakdown by race and ethnicity for the counties that are located within the Extended Study Area, as well as for the State of California, based on the 2005 to 2009 Census Bureau American Community Survey (U.S. Census Bureau, 2009c).

23.2.3 Secondary Study Area

23.2.3.1 Methodology

To characterize the population, race, and ethnicity of the Secondary Study Area, data from the U.S. Census Bureau were obtained for each of the 22 counties that are located within that study area. Table 23-2 lists the total population and population breakdown by race and ethnicity, based on the 2005 to 2009 Census Bureau American Community Survey (U.S. Census Bureau, 2009c). Fourteen of the 22 counties in the Secondary Study area are also located in the Extended Study Area (Table 23-1), and are not repeated in Table 23-2.

Table 23-1
Race and Ethnicity of the State of California and the Counties that are Located within the Extended Study Area

County	Race and Ethnicity								
	Total Population	Hispanic Origin (of any race)	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or More Races
Alameda ^a	1,457,095	310,688	684,471	187,300	7,720	358,959	10,866	144,998	62,781
Butte ^a	217,917	27,778	181,462	3,498	2,531	8,744	524	10,209	10,949
Calaveras	46,548	4,565	42,113	651	910	673	18	926	1,257
Colusa ^b	21,001	10,663	13,982	241	365	185	62	5,311	855
Contra Costa ^a	1,015,571	226,432	632,590	93,210	4,478	136,379	4,440	101,802	42,672
El Dorado ^a	175,941	20,242	153,780	776	1,431	7,442	137	7,222	5,153
Fresno	890,750	428,139	553,541	45,741	8,824	78,776	1,057	170,379	32,432
Glenn ^b	27,891	9,648	20,120	193	613	863	10	5,025	1,067
Imperial	160,034	121,781	114,021	5,783	2,628	3,334	144	30,164	3,960
Kern	780,953	360,187	504,346	44,601	7,600	29,393	970	165,064	28,979
Kings	146,696	70,992	101,963	11,356	2,221	4,912	132	21,875	4,237
Los Angeles	9,785,295	4,627,543	4,963,235	862,521	51,809	1,276,546	26,956	2,311,733	292,495
Madera	144,794	72,444	112,723	5,901	2,450	2,761	175	15,729	5,055
Merced	242,235	126,272	158,880	9,156	2,405	16,972	545	46,456	7,791
Monterey	404,922	210,808	272,927	13,475	2,753	25,449	1,624	74,823	13,871
Napa	132,173	38,601	105,830	2,516	1,104	7,676	534	10,846	3,667
Nevada	97,063	7,270	89,536	515	1,267	1,287	134	1,904	2,420
Orange	2,976,831	987,175	1,877,058	51,015	14,505	479,750	9,481	467,667	77,354
Placer ^a	332,059	39,178	281,654	4,964	2,945	17,998	854	13,485	10,159
Plumas	20,550	1,527	18,831	216	579	202	6	330	386
Riverside	2,036,304	879,799	1,308,393	124,960	19,110	106,871	5,478	396,988	74,504
Sacramento ^a	1,375,605	271,667	845,626	138,418	13,670	184,568	11,487	118,992	62,754
San Benito	54,752	28,809	35,835	725	873	1,392	8	12,940	2,979

PRELIMINARY – SUBJECT TO CHANGE

Table 23-1
Race and Ethnicity of the State of California and the Counties that are Located within the Extended Study Area

County	Race and Ethnicity								
	Total Population	Hispanic Origin (of any race)	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or More Races
San Bernardino	1,986,635	925,914	1,215,076	176,125	20,325	116,126	5,552	373,783	79,648
San Diego	2,987,543	906,922	2,124,247	151,261	21,272	304,192	13,689	260,556	112,326
San Joaquin	664,641	241,865	402,861	48,842	6,172	91,275	2,998	78,984	33,509
San Luis Obispo	262,149	49,374	223,498	5,088	2,416	8,286	430	14,407	8,024
Santa Barbara	402,025	155,814	306,777	7,647	3,967	17,887	804	50,912	14,031
Santa Clara ^a	1,729,378	444,128	899,076	44,401	9,172	522,847	6,247	186,518	61,117
Santa Cruz	251,398	72,956	213,220	2,445	1,095	9,674	430	15,520	9,314
Shasta ^a	179,387	13,854	158,210	1,785	4,656	4,662	272	3,579	6,223
Solano ^a	406,461	89,411	214,951	58,483	2,852	56,658	3,507	45,933	24,077
Stanislaus	505,165	196,701	376,806	14,721	5,176	26,318	2,769	61,589	17,786
Sutter ^a	90,731	24,487	60,221	1,673	1,134	11,330	224	10,890	5,259
Tehama ^a	60,601	12,141	49,548	526	1,221	817	60	6,227	2,202
Tulare	416,299	235,858	316,499	6,232	4,726	14,396	385	62,312	11,749
Tuolumne	55,761	5,536	48,531	1,319	850	537	158	2,038	2,328
Ventura	792,313	295,566	546,998	15,787	9,330	52,122	1,945	137,822	28,309
Yolo ^a	192,974	54,933	131,392	4,587	2,040	22,304	1,178	21,837	9,636
California	36,308,527	13,102,161	22,258,042	2,249,404	283,031	4,473,292	132,535	5,639,234	1,272,989

^aThese counties are located in both the Secondary and Extended study areas.

^bThese two counties are located in all three study areas (Primary, Secondary, and Extended).

Source: U.S. Census Bureau, 2009c.

PRELIMINARY – SUBJECT TO CHANGE

Table 23-2
Race and Ethnicity of the State of California and the Counties that are Located within the Secondary Study Area*

County	Race and Ethnicity								
	Total Population	Hispanic Origin (of any race)	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Other Race	Two or More Races
Del Norte	28,729	4,630	21,281	987	1,466	836	181	2,222	1,756
Humboldt	129,003	10,705	107,090	1,387	6,881	2,779	448	3,778	6,640
Marin	246,711	33,639	199,929	7,829	928	13,962	562	16,950	6,551
San Francisco	797,271	113,107	429,829	51,850	3,765	250,146	3,408	32,133	26,140
San Mateo	701,886	161,800	425,806	22,455	2,477	167,397	9,647	49,032	25,072
Sonoma	464,218	103,650	375,358	7,105	5,027	18,029	1,008	42,841	14,850
Trinity	13,922	705	12,391	69	204	136	35	208	879
Yuba	70,906	15,929	48,861	1,472	1,399	4,956	154	8,440	5,624

*See Table 23-1 for 14 additional counties that are located within the Secondary Study Area.

Source: U.S. Census Bureau, 2009c.

PRELIMINARY – SUBJECT TO CHANGE

23.2.4 Primary Study Area

23.2.4.1 Methodology

To characterize the population, race, ethnicity, income, poverty, unemployment, and housing characteristics of the Primary Study Area, data from the U.S. Census Bureau were obtained for the two counties that are located within that study area.

23.2.4.2 Race and Ethnic Character

Table 23-3 lists the population and percent minority population for Glenn and Colusa counties, as well as for the State of California. It also provides the race breakdown and Hispanic or Latino ethnicity percentages (U.S. Census Bureau, 2009c).

Table 23-3
Race and Ethnicity 2005-2009 Five-Year Estimate - Glenn and Colusa Counties
and the State of California

Parameter	Glenn County	Colusa County	California
Total Population	27,891	21,001	36,308,527
Percent Minority ^a	27.9	33.4	38.7
White			
Number	20,120	13,982	22,258,042
Percent	72.0	66.6	61.3
Black or African American			
Number	193	241	2,249,404
Percent	0.69	1.1	6.2
American Indian and Alaska Native ^b			
Number	613	185	283,031
Percent	2.2	1.7	0.78
Asian			
Number	863	185	4,473,292
Percent	3.1	0.88	12.3
Native Hawaiian and Other Pacific Islander			
Number	10	62	132,535
Percent	0.04	0.3	0.37
Some Other Race			
Number	5,025	5,311	5,639,234
Percent	18.0	22.1	15.5
Two or More Races			
Number	1,067	855	1,272,989
Percent	3.8	4.0	3.5
Hispanic or Latino (any race)			
Number	9,648	10,663	13,102,161
Percent	34.6	50.17	36.1

^aMinority population was calculated by subtracting the white population parameter from the total county or state population numbers to conservatively estimate minority population and avoid double-counting mixed-race individuals.

^bThe tribes known to be present in the Primary Study Area include the Hill and River Patwin and, to a lesser extent, in areas belonging to the Nomlaki and the Konkow Maidu.

Source: U.S. Census Bureau, 2009c.

As shown in Table 23-3, the Hispanic population in Colusa County is just over the 50 percent threshold (50.1 percent) indicating that a majority of the County population identifies itself as a minority population. For Glenn County and the State of California, none of the minority population parameters approach the 50 percent threshold. A review of the U.S. Census blocks in the vicinity of all proposed Project facilities within the Primary Study Area was conducted. This review confirmed that the Primary Study Area is sparsely populated. It further confirmed that all Project facilities would be located in primarily areas that are unpopulated or have less than a 25 percent minority population. The exception to this is the easternmost three miles of the proposed Delevan Transmission Line and Delevan Pipeline alignments, in which 75.1 to 100 percent of the population is identified as being minority. In addition, all Project facilities would be located in areas where 25 percent or less of the population is identified as low income.

23.2.4.3 Income, Poverty, Unemployment, and Housing Characteristics

Table 23-4 provides income, poverty, unemployment, and housing data for Glenn and Colusa counties, as well as for the State of California.

Table 23-4
Income, Poverty, Unemployment, and Housing 2005-2009 Five-Year Estimate - Glenn and Colusa Counties and the State of California

Parameter	Glenn County	Colusa County	California
Median Family Income	\$47,618	\$51,637	\$53,760
Per Capita Income	\$19,257	\$20,381	\$22,973
Families Below Poverty Level (#/%)	566/2%	2,520 /12.2%	110,663/7.3%
Individuals Below Poverty Level (#/%)	390/14.2%	9,280/15.7%	612,370/10.6%
Percent Unemployed	4.2	8.2	6.2
Housing: 1.01 or More Occupants per Room* (%)	3.6	3.7	5.1
Housing: Lacking Complete Plumbing Facilities (%)	0.9	0.4	0.5

*This parameter is an indicator of how crowded the living facilities are.

Note:

It is noted that the 2012-2013 Community Action Plan for the Community Services Block Grant for Colusa, Glenn, and Trinity counties reports these poverty and unemployment rates: 2010 poverty rate in Colusa County of 15.7 percent and Glenn County of 17.8 percent; and April 2011 unemployment rate in Colusa County of 21 percent and in Glenn County of 16.5 percent (Community Action Partnership, 2011).

Source: U.S. Census Bureau, 2009c.

As shown in Table 23-4¹, both counties have lower median family and per capita incomes than the State of California. The percentages of individuals living below the poverty level are higher in both counties when compared to the State; however, the percentage of families living below the poverty level in Glenn County is lower than Colusa County and the State. The unemployment rate in Colusa County is higher than the State, and Glenn County's unemployment rate is lower than the State. In addition, the percentage of people who are living together in individual rooms is lower in both counties than the State. The percentage of homes that lack plumbing facilities in Glenn County is greater than the State, and the percentage in Colusa County is less than the State.

¹ It is acknowledged that there are likely undocumented workers within Glenn and Colusa counties that are not included in U.S. Census Bureau data.

23.3 Environmental Impacts/Environmental Consequences

23.3.1 Regulatory Setting

Environmental justice is regulated at the federal, State, and local levels. Provided below is a list of the applicable regulations. These regulations are discussed in detail in Chapter 4 Environmental Compliance and Permit Summary of this EIR/EIS.

23.3.1.1 Federal Plans, Policies, and Regulations

- Executive Order 12898 (EO 12898) regarding “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (1994)
- Council on Environmental Quality Guidance (1997)
- U.S. Department of the Interior Environmental Compliance Memorandum No. ECM 95-3 (National Environmental Policy Act [NEPA] Responsibilities Under the Environmental Justice Policy, 1995)
- U.S. Department of the Interior Environmental Justice Strategic Plan (1995)
- U.S. Environmental Protection Agency Office of Environmental Justice’s Environmental Justice Implementation Plan (1997)
- Title VI of the Civil Rights Act of 1964
- U.S. Environmental Protection Agency Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analyses (1998)

23.3.1.2 State Plans, Policies, and Regulations

- Delta Vision Strategic Plan (October 2008)
- Senate Bill 115 (Solis) (1999)
- California Government Code Section 65040.12
- California State Lands Commission Environmental Justice Policy (October 1, 2002)
- California Public Resources Code Sections 71110 to 71116
- CALFED Environmental Justice Statement (as declared in August 2000, Record of Decision [ROD] CALFED Bay Delta Program Programmatic EIS/EIR)

23.3.1.3 Regional and Local Plans, Policies, and Regulations

- Tehama County General Plan
- Glenn County General Plan
- Colusa County General Plan

23.3.2 Evaluation Criteria and Significance Thresholds

Significance criteria represent the thresholds that were used to identify whether an impact would be significant. Appendix G of the *CEQA Guidelines* does not address environmental justice or minority and low-income populations specifically. Its Mandatory Findings of Significance Question (c) is relevant to the general population, as follows:

- Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

EO 12898 specifies that, “each federal agency shall analyze the environmental effects, including human health, economic, and social effects, of federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA.” For the purposes of this analysis, an alternative would result in a significant environmental justice impact if it would result in the following:

- A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority or Low-Income Population, Including the Potential for Minority or Low-Income Populations to be Disproportionately Affected by Multiple Adverse Exposures.

Potential adverse environmental impacts associated with this type of major infrastructure project include construction-, operation-, or maintenance-related nuisance effects (e.g., traffic, noise, dust, and/or hazards); and construction, operation, or maintenance effects on local employment opportunities.

23.3.3 Impact Assessment Assumptions and Methodology

23.3.3.1 Assumptions

The following assumptions were made regarding Project-related construction, operation, and maintenance impacts to minority and low-income populations:

- Direct Project-related construction, operation, and maintenance activities would occur in the Primary Study Area.
- Direct Project-related operational effects would occur in the Secondary Study Area.
- The only direct Project-related construction activity that would occur in the Secondary Study Area is the installation of an additional pump into an existing bay at the Red Bluff Pumping Plant.
- The only direct Project-related maintenance activity that would occur in the Secondary Study Area is the sediment removal and disposal at the two intake locations (i.e., GCID Canal Intake and Red Bluff Pumping Plant).
- No direct Project-related construction or maintenance activities would occur in the Extended Study Area.
- Direct Project-related operational effects that would occur in the Extended Study Area are related to San Luis Reservoir operation; increased reliability of water supply to agricultural, municipal, and industrial water users; and the provision of an alternate Level 4 wildlife refuge water supply. Indirect effects to the operation of certain facilities that are located in the Extended Study Area, and indirect effects to the consequent water deliveries made by those facilities, would occur as a result of implementing the alternatives.
- The existing bank protection located upstream of the proposed Delevan Pipeline Intake/Discharge facilities would continue to be maintained and remain functional.
- No additional channel stabilization, grade control measures, or dredging in the Sacramento River at or upstream of the Delevan Pipeline Intake or Discharge Facilities would be required.

23.3.3.2 Methodology

The analysis characterizes the distributional patterns of minority and low-income populations in the Primary Study Area and describes whether Project impacts to minority and/or low-income populations would be disproportionately high and adverse.

In accordance with CEQ and USEPA guidelines established to assist federal and State agencies, the first step undertaken in this environmental justice analysis was to define minority and low-income populations. For this analysis, a minority population was defined to be present in the Primary Study Area if: (1) the minority population of the affected area exceeds 50 percent, or (2) the minority population percentage of the affected area is at least 10 percentage points greater than that of the general population in the State. By the same rule, a low-income population exists in the Primary Study Area if it consists of 50 percent or more people living below the poverty threshold, as defined by the U.S. Census Bureau, or is significantly greater than the poverty percentage of the general population or other appropriate unit of geographic analysis.

The second step undertaken in this environmental justice analysis was to determine if a “high and adverse” impact would occur. The CEQ guidance indicates that, when determining whether the effects are high and adverse, agencies are to consider whether the risks or rates of impact “are significant or above generally accepted norms.”

The final step undertaken in this analysis was to determine if the impact on the minority or low-income population would be disproportionately high and adverse. The CEQ includes a non-quantitative definition stating that an effect is disproportionate if it appreciably exceeds the risk or rate to the general population.

23.3.4 Topics Eliminated from Further Analytical Consideration

No Project facilities or topics that are included in the significance criteria listed above were eliminated from further consideration in this chapter.

23.3.5 Impacts Associated with the No Project/No Action Alternative

23.3.5.1 Extended, Secondary, and Primary Study Areas – No Project/No Action Alternative

Construction, Operation, and Maintenance Impacts

Agricultural Water Use, Municipal and Industrial Water Use, Wildlife Refuge Water Use, San Luis Reservoir, Trinity Lake, Lewiston Lake, Trinity River, Klamath River Downstream of the Trinity River, Whiskeytown Lake, Spring Creek, Shasta Lake, Sacramento River, Keswick Reservoir, Clear Creek, Lake Oroville, Thermalito Complex (Thermalito Diversion Pool, Thermalito Forebay, and Thermalito Afterbay), Feather River, Sutter Bypass, Yolo Bypass, Folsom Lake, Lake Natoma, American River, Sacramento-San Joaquin Delta, Suisun Bay, San Pablo Bay, and San Francisco Bay

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority or Low-Income Population, Including the Potential for Minority or Low-Income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

The No Project/No Action Alternative includes implementation of projects and programs being constructed, or those that have gained approval, as of June 2009. The impacts of these projects have

already been evaluated on a project-by-project basis, when evaluated pursuant to NEPA, and their potential for environmental justice impacts has been addressed in those environmental documents. Therefore, **there would not be a substantial adverse effect** on a minority and/or low-income population, when compared to Existing Conditions.

Population growth is expected to occur in California throughout the period of Project analysis (i.e., 100 years), and is included in the assumptions for the No Project/No Action Alternative. A larger population could be expected to result in more minority and/or low-income people living throughout the three study areas. The projects that are included in the No Project/No Action Alternative would already have been in place for most of the Project analysis period; therefore, the future population (including its minorities and low-income population) that chooses to relocate near the projects included in the No Project/No Action Alternative would not experience new impacts and **there would not be a substantial adverse effect**, when compared to Existing Conditions.

In addition, projects considered within the No Project/No Action Alternative are not located within the Primary Study Area, and therefore, **there would not be a substantial adverse effect** on a minority and/or low-income population within that study area, when compared to Existing Conditions.

23.3.6 Impacts Associated with Alternative A

23.3.6.1 Extended Study Area – Alternative A

Construction, Operation, and Maintenance Impacts

Agricultural Water Use, Municipal and Industrial Water Use, Wildlife Refuge Water Use, and San Luis Reservoir

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority or Low-Income Population, Including the Potential for Minority or Low-Income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

There would be no direct Project-related construction or maintenance occurring within the CVP and SWP service areas of the Extended Study Area. As a result, there would be no traffic, noise, dust, hazards, and/or socioeconomic effects in the Extended Study Area that would affect a minority and/or low-income population. Therefore, there would be **no impact** on a minority and/or low-income population, when compared to Existing Conditions and the No Project/No Action Alternative.

Improvement in surface water supply reliability for agricultural, municipal, and industrial users, and the provision of an alternate Level 4 water supply source for wildlife refuge users resulting from Project operation would reduce the need for extracting groundwater and/or provide some additional applied water for deep percolation recharge of the aquifer system. Operation at San Luis Reservoir would be altered to accommodate Project operation, which would result in more frequent and larger surface water elevation fluctuations at the reservoir than currently occurs there. These operational changes would not have a disproportionately high or adverse impact on a minority or low-income population, resulting in **no impact**, when compared to Existing Conditions and the No Project/No Action Alternative.

23.3.6.2 Secondary Study Area – Alternative A

Construction, Operation, and Maintenance Impacts

Trinity Lake, Lewiston Lake, Trinity River, Klamath River Downstream of the Trinity River, Whiskeytown Lake, Spring Creek, Shasta Lake, Sacramento River, Keswick Reservoir, Clear Creek, Lake Oroville, Thermalito Complex (Thermalito Diversion Pool, Thermalito Forebay, and Thermalito Afterbay); Feather River; Sutter Bypass; Yolo Bypass; Folsom Lake; Lake Natoma; American River; Sacramento-San Joaquin Delta; Suisun Bay; San Pablo Bay; and San Francisco Bay

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority or Low-Income Population, Including the Potential for Minority or Low-Income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

There would be no direct Project-related construction or maintenance occurring at any of the above-listed facilities or areas within the Secondary Study Area. Therefore, **no impact** on a minority and/or low-income population would occur, when compared to Existing Conditions and the No Project/No Action Alternative.

Project operational activities would result in improved surface water storage in reservoir facilities within the Secondary Study Area, and also changes to the flow regime of the rivers, creeks, and bypasses within that area. These changes are not expected to result in substantial increases in the amount of water (surface or groundwater) that would be available to people (including minority and/or low-income populations) residing within the Secondary Study Area. Additionally, changes in flow regime or surface water elevations would not result in traffic, noise, air quality, hazards, and/or socioeconomic impacts to people (including minority and/or low-income populations). Therefore, there would be **no impact**, when compared to Existing Conditions and the No Project/No Action Alternative.

Pump Installation at the Red Bluff Pumping Plant

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority or Low-Income Population, Including the Potential for Minority or Low-Income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

The only direct Project-related construction that would occur in the Secondary Study Area is the installation of an additional pump into an existing pump bay at the Red Bluff Pumping Plant. The only direct Project-related maintenance activity that would occur in the Secondary Study Area is the removal of sediment from the existing GCID Canal and Red Bluff Pumping Plant intakes. Neither of these activities would result in traffic, noise, air quality, hazards, and/or socioeconomic impacts to people (including minority and/or low-income populations) due to the facilities' locations away from residences and businesses (e.g., they are separated from the Red Bluff Pumping Plant construction site by streets and an elevated railroad track). There would, therefore, be **no impact**, when compared to Existing Conditions and the No Project/No Action Alternative.

23.3.6.3 Primary Study Area – Alternative A

Construction, Operation, and Maintenance Impacts

All Primary Study Area Project Facilities

Impact Env Jus-1: A Disproportionate Share of an Adverse Impact (such as Traffic, Noise, Dust, Hazards, and/or Socioeconomic Effects) on a Minority or Low-Income Population, Including the Potential for Minority or Low-Income Populations to be Disproportionately Affected by Multiple Adverse Exposures Impacts

Minority Population

Project construction impacts would occur during the defined construction period at each Project facility. The distribution and location of minority population relative to all Project facility locations is shown on the figures included in Appendix 23A. Construction of the proposed Sites Reservoir would require the demolition of all existing structures within the reservoir inundation area and the surrounding Project Buffer, and the relocation of all residents within those boundaries. Sites Reservoir would be located in an area that has a very low population; many areas of the reservoir footprint are unpopulated. A total of 26 residences and two mobile homes would be displaced by Sites Reservoir.

In the areas that are populated, most of the reservoir site has 10 percent or less minority population, with a few areas having 10.1 to 25 percent minority population, and a very small area having 25.1 to 50 percent minority population.

All other Project facilities would be located in areas classified as being unpopulated, or having 25 percent or less minority in areas that have population, except for the easternmost three miles of the proposed Delevan Transmission Line and Delevan Pipeline, in which the area is classified as being 75.1 to 100 percent minority (U.S. Census Bureau, 2000). The easternmost three miles of proposed Delevan Transmission Line/Pipeline alignment has one residence in the vicinity. Siting of transmission line towers and pipeline installation would not affect that residence, resulting in **no impact** to residents, and particularly **no disproportionate impact** to a minority population, when compared to Existing Conditions and the No Project/No Action Alternative.

Low-Income Population

The distribution and location of low-income population relative to all Project facility locations is shown on the figures included in Appendix 23B. Sites Reservoir would be located in an area that is classified as primarily 10.1 to 25 percent low income, with a small area that is 0 to 10 percent low income (U.S. Census Bureau, 2000). All Project facilities, other than Sites Reservoir, would be located in areas classified as being 10.1 to 25 percent low income (U.S. Census Bureau, 2000). The areas where Project facilities would be constructed do not have high percentages of the two counties' populations or of low-income populations. Therefore, there would be **no impact** to residents, and particularly **no disproportionate impact** to a low-income population, from construction, operation, or maintenance in the Primary Study Area, when compared to Existing Conditions and the No Project/No Action Alternative.

Hispanic Population

Although the Hispanic population in Colusa County is greater than 50 percent of the County's population, as shown in Table 23-3, the County's population is low and widely distributed. As discussed above, the areas where Project facilities would be constructed do not have high percentages of the two counties'

populations, or of minorities or low-income populations. Along the portion of the Delevan Transmission Line/Pipeline alignment, which is classified as being high minority percentage by the U.S. Census Bureau, there is one residence, which would not be affected during Project construction, operation, or maintenance. Therefore, there would be **no impact** to residents at this location within the Primary Study Area, and particularly **no disproportionate impact** to a minority or low-income population, from construction, operation, or maintenance in the Primary Study Area, when compared to Existing Conditions and the No Project/No Action Alternative.

Job and Recreational Opportunities

In addition, this alternative has the potential to create jobs for minorities who have the appropriate construction, operation, or maintenance skillset for the Project. Further, this alternative would increase recreational opportunities in Glenn and Colusa counties for all recreationists, including minority and low-income populations, resulting in a **potentially beneficial effect**, when compared to Existing Conditions and the No Project/No Action Alternative.

23.3.7 Impacts Associated with Alternative B

23.3.7.1 Extended and Secondary Study Areas – Alternative B

Construction, Operation, and Maintenance Impacts

The impacts associated with Alternative B, as they relate to disproportionate adverse impacts on a minority or low-income population (**Impact Env Jus-1**), would be the same as described for Alternative A for the Extended and Secondary study areas.

23.3.7.2 Primary Study Area – Alternative B

Construction, Operation, and Maintenance Impacts

The following Primary Study Area Project facilities are included in both Alternatives A and B. These facilities would require the same construction methods and operation and maintenance activities regardless of alternative, and would, therefore, result in the same construction, operation, and maintenance impacts to a minority or low-income population:

- Recreation Areas
- Sites Pumping/Generating Plant
- Sites Electrical Switchyard
- Tunnel from Sites Pumping/Generating Plant to Sites Reservoir Inlet/Outlet Structure
- Sites Reservoir Inlet/Outlet Structure
- Field Office Maintenance Yard
- Holthouse Reservoir Complex
- Holthouse Reservoir Electrical Switchyard
- GCID Canal Facilities Modifications
- GCID Canal Connection to the TRR
- TRR
- TRR Pumping/Generating Plant
- TRR Electrical Switchyard
- TRR Pipeline
- TRR Pipeline Road

- Delevan Pipeline
- Delevan Pipeline Electrical Switchyard

If Alternative B is implemented, the footprint or construction disturbance area of Sites Reservoir Inundation Area, Sites Reservoir Dams, and South Bridge; the Road Relocations and TRR Pipeline Road; the Delevan Transmission Line; and the Electrical Distribution Lines would differ from Alternative A. In addition, the Delevan Pipeline Intake Facilities would be replaced by the Delevan Pipeline Discharge Facility. However, these differences in the size of the footprint or alignment of the construction disturbance area would require the same type of construction, operation, and activities as was described for Alternative A. They would, therefore, have the same impact on a minority and/or low-income population (**Impact Env Jus-1**) as described for Alternative A.

The boundary of the Project Buffer would be the same for Alternatives A and B, but because the footprints of some of the Project facilities that are included in the Project Buffer would differ between the alternatives, the acreage of land within the Project Buffer would also differ. However, these differences in the size of the area included within the buffer would not change the type of construction, operation, and maintenance activities, and associated impacts on a minority and/or low-income population (**Impact Env Jus-1**) as described for Alternative A.

23.3.8 Impacts Associated with Alternative C

23.3.8.1 Extended and Secondary Study Areas – Alternative C

Construction, Operation, and Maintenance Impacts

The impacts associated with Alternative C, as they relate to disproportionate adverse impacts on a minority or low-income population (**Impact Env Jus-1**), would be the same as described for Alternative A for the Extended and Secondary study areas.

23.3.8.2 Primary Study Area – Alternative C

Construction, Operation, and Maintenance Impacts

The following Primary Study Area Project facilities are included in Alternatives A, B, and C. These facilities would require the same construction methods and operation and maintenance activities regardless of alternative, and would, therefore, result in the same construction, operation, and maintenance impacts to a minority or low-income population:

- Recreation Areas
- Sites Pumping/Generating Plant
- Sites Electrical Switchyard
- Tunnel from Sites Pumping/Generating Plant to Sites Reservoir Inlet/Outlet Structure
- Sites Reservoir Inlet/Outlet Structure
- Field Office Maintenance Yard
- Holthouse Reservoir Complex
- Holthouse Reservoir Electrical Switchyard
- GCID Canal Facilities Modifications
- GCID Canal Connection to the TRR
- TRR
- TRR Pumping/Generating Plant

- TRR Electrical Switchyard
- TRR Pipeline
- TRR Pipeline Road
- Delevan Pipeline
- Delevan Pipeline Electrical Switchyard

The Alternative C design of the Delevan Transmission Line and Delevan Pipeline Intake Facilities is the same as described for Alternative A. These facilities would require the same construction methods and operation and maintenance activities regardless of alternative, and would, therefore, result in the same construction, operation, and maintenance impacts to a minority or low-income population (**Impact Env Jus-1**) as described for Alternative A.

The Alternative C design of the Sites Reservoir Inundation Area, Sites Reservoir Dams, and South Bridge; Road Relocations and TRR Pipeline Road; and the Electrical Distribution Lines is the same as described for Alternative B. These facilities would require the same construction, operation, and maintenance activities regardless of alternative, and would, therefore, result in the same construction, operation, and maintenance impacts to a minority or low-income population (**Impact Env Jus-1**) as described for Alternative B.

The boundary of the Project Buffer would be the same for all alternatives, but because the footprints of some of the Project facilities that are surrounded by the Project Buffer would differ between the alternatives, the acreage of land within the Project Buffer would also differ. However, this difference in the size of the area included within the buffer would not change the type of construction, operation, and maintenance activities that were described for Alternative A. It would, therefore, have the same impact on a minority or low-income population (**Impact Env Jus-1**) as described for Alternative A.

23.4 Mitigation Measures

Because no significant or potentially significant impacts were identified, no mitigation is required or recommended.

23.5 References

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